

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

FILED

P. M. *October 6* 20*09*
DAVID J. MALAND, CLERK
U.S. DISTRICT COURT
By *[Signature]* DEPUTY

CUMMINS-ALLISON CORP.,

Plaintiff,

v.

SBM CO., LTD. and AMRO-ASIAN
TRADE, INC.,

Defendants.

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CIVIL ACTION No. 9:07CV196
(consolidated)

JUDGE RON CLARK

JURY INSTRUCTIONS

You have heard the evidence in this case. I will now instruct you on the law that you must apply. It is your duty to follow the law as I give it to you. On the other hand, you, the jury, are the judges of the facts. Do not consider any statement that I have made in the course of the trial, or make in these instructions, as an indication that I have any opinion about the facts of this case.

After I instruct you on the law, the attorneys will have an opportunity to make their closing arguments. Statements and arguments of the attorneys are not evidence and are not instructions on the law. They are intended only to assist the jury in understanding the evidence and the parties' contentions.

It is my duty as Judge to explain what some of the words used in the patent claims mean. Attached as Appendix A to this charge are the claim terms I have

defined for you. These are the same definitions found in your juror notebooks. You must accept as correct the definitions contained in Appendix A.

The claim language of the patents I have not defined for you in Appendix A is to be given its ordinary and accustomed meaning as understood by one of ordinary skill in the art, in the context of the patent specifications and file history. A **“person of ordinary skill in the art”** for the patents-in-suit is an individual with the equivalent of a four-year degree from an accredited institution (usually denoted in this country as a B.S. or Bachelor’s degree) in Mechanical Engineering, Electrical Engineering, Computer Science, or Computer Engineering, together with at least three years of experience in the design or manufacture of currency or document discrimination machines. Advanced education might substitute for some of the experience, while extensive experience might substitute for some of the educational requirements.

When words in these instructions and in the definitions in Appendix A are used in a sense that varies from their commonly understood meaning, you are given a proper legal definition, which you are bound to accept in place of any other meaning. The other words in these instructions, and in the definitions I have provided to you, have the meaning commonly understood.

Answer each question based on the facts as you find them. Do not decide who you think should win and then answer the questions accordingly. Your answers and your verdict must be unanimous.

I. What Is and What Is Not Evidence

You will be instructed to answer some questions based upon a **“preponderance of the evidence.”** This means you must be persuaded by the evidence that the claim is more likely true than not true. You will be instructed to answer other questions by **“clear and convincing evidence.”** This is a higher burden than by a preponderance of the evidence, but it does not require proof beyond a reasonable doubt. Clear and convincing evidence is evidence that shows the claim is highly probable.

In deciding whether any fact has been proved in the case, you may, unless otherwise instructed, consider the testimony of all witnesses, regardless of who may have called them, all exhibits received in evidence, regardless of who may have produced them, and the facts to which the parties have stipulated. Attached as Appendix B to this charge is a list of facts to which the parties have stipulated. Note that there is an additional stipulation, number eight, and that the date in stipulation number five has been corrected. You must treat all of the stipulated facts as having been proved.

In determining the weight to give to the testimony of a witness, you should ask yourself whether there was evidence tending to prove that the witness testified falsely

concerning some important fact, or whether there was evidence that at some other time, the witness said or did something, or failed to say or do something, that was different from the testimony the witness gave before you during the trial.

You should keep in mind, of course, that a simple mistake by a witness does not necessarily mean that the witness was not telling the truth as he or she remembers it, because people may forget some things or remember other things inaccurately. So, if a witness has made a misstatement, you need to consider whether that misstatement was an intentional falsehood or simply an innocent lapse of memory, and the significance of that may depend on whether it has to do with an important fact or only with an unimportant detail.

If scientific, technical, or other specialized knowledge may be helpful to the jury, a witness with special training or experience may testify and state an opinion concerning such matters. However, you are not required to accept that opinion. You should judge such testimony like any other testimony. You may accept it or reject it, and give it as much weight as you think it deserves, considering the witness's education and experience, the soundness of the reasons given for the opinion, and all other evidence in the case. In deciding whether to accept or rely upon the opinion of such a witness, you may consider any bias of the witness, including any bias you may

infer from evidence that the witness has been or will be paid for reviewing the case and testifying, or from evidence that he or she testifies regularly.

In making up your mind and reaching your verdict, do not make your decisions simply because there were more witnesses on one side than on the other. Do not reach a conclusion on a particular point just because there were more witnesses testifying for one side on that point. The testimony of a single witness may be sufficient to prove any fact, even if a greater number of witnesses may have testified to the contrary, if after considering all the other evidence you believe that single witness.

While you should consider only the evidence in this case, you are permitted to draw such reasonable inferences from the testimony and exhibits as you feel are justified in the light of common experience. In other words, you may make deductions and reach conclusions that reason and common sense lead you to draw, from the facts that have been established by the testimony and evidence in the case.

There are two types of evidence that you may consider in properly finding the truth as to the facts in the case. One is direct evidence, such as testimony of an eyewitness. The other is indirect or circumstantial evidence, the proof of a chain of circumstances that indicates the existence or nonexistence of certain other facts. As a general rule, the law makes no distinction between direct and circumstantial

evidence, but simply requires that you find the facts from a preponderance of all the evidence, both direct and circumstantial.

During the trial, I sustained objections to certain questions. You must disregard those questions entirely. Do not speculate as to what the witness would have said if he or she had been permitted to answer the question.

Also, do not assume from anything I may have done or said during the trial that I have any opinion concerning any of the issues in this case. Except for the instructions to you on the law, you should disregard anything I may have said during the trial in arriving at your own findings as to the facts.

If you have taken notes they are to be used only as aids to your memory, and if your memory should be different from your notes, you should rely on your memory and not on your notes. If you did not take notes, rely on your own independent memory of the testimony. Do not be unduly influenced by the notes of other jurors. A juror's notes are not entitled to any greater weight than the recollection of each juror concerning the testimony.

II. The Nature of the Action, the Parties, and the Contentions

The patents involved in this case are referred to as the '354, the '456, the '503, and the '806 patents. The Plaintiff, Cummins-Allison Corp. ("Cummins") contends that the Defendants, SBM Co., Ltd. ("SBM") and Amro-Asian Trade, Inc. ("Amro"),

infringe claim 55 of the '354 patent; claim 41 of the '456 patent; claim 15 of the '503 patent; and claims 58, 85, and 120 of the '806 patent.

You have the responsibility of deciding whether SBM and Amro infringed claim 55 of the '354 patent and claim 15 of the '503 patent. The parties agree that the accused products perform all the steps set out in claim 41 of the '456 patent and claims 58, 85, and 120 of the '806 patent. Even though the PTO Examiner has allowed the claims of the patents, you, the jury, also have the responsibility for deciding whether the claims of the patents are valid.

III. Claims and Claim Interpretation

To decide the questions of infringement and invalidity, you must first understand what the claims of the patents cover, that is, what they prevent anyone else from doing. This is called "claim interpretation." You must use the same claim interpretation for both your decision on infringement and your decision on invalidity. I instructed you earlier on the definitions you must use in interpreting claims.

The patent claims are the numbered sentences at the end of the patents-in-suit. Each claim describes a separate invention. The claims are divided into parts called "limitations." For apparatus claims, which describe a physical entity such as an apparatus, product, or device, these limitations may also be referred to as "elements."

For method claims, which describe an activity or a series of steps to perform a process, these limitations may also be referred to as “steps.”

The claims are “word pictures” intended to define, in words, the boundaries of the inventions. Only the claims of a patent can be infringed. Neither the written description, sometimes called the specification, nor the drawings of a patent can be infringed. Additionally, the fact that one of the SBM machines is similar to one of Cummins’s products is not evidence of infringement. Each of the claims must be considered individually.

In this case, there are six claims, namely claim 55 of the ‘354 patent; claim 41 of the ‘456 patent; claim 15 of the ‘503 patent; and claims 58, 85, and 120 of the ‘806 patent. Claim 55 of the ‘354 patent and claim 15 of the ‘503 patent are apparatus claims that describe a physical object. Claims 58, 85, and 120 of the ‘806 patent and claim 41 of the ‘456 patent are method claims that describe an activity. You shall give your decisions on infringement based only on these claims and the claims from which they depend as set out in your juror notebooks and these instructions, and shall not consider other claims in the patents-in-suit.

Patent claims may exist in two forms, referred to as independent claims and dependent claims. An independent claim does not refer to any other claim of the patent. Thus it is not necessary to look at any other claim to determine what an

independent claim covers. Claim 55 of the '354 patent and claim 15 of the '504 patent are independent claims. Claim 41 of the '456 patent and claims 58, 85, and 120 of the '806 patent are dependent claims.

A dependent claim refers to at least one other claim in the patent. In this case, claim 41 of the '456 patent depends from claim 35; claim 58 of the '806 patent depends from claim 49; claim 85 of the '806 patent depends from claim 84, which depends from claim 82; and claim 120 of the '806 patent depends from claim 112. A dependent claim includes each of the limitations of the other claim or claims to which it refers, as well as the additional limitations recited in the dependent claim itself. Therefore, to determine what is covered by a dependent claim, it is necessary to look both at the dependent claim itself and the claim or claims to which it refers.

IV. Infringement

There are two ways in which a patent claim can be directly infringed: (1) "literal infringement"; and (2) "infringement under the doctrine of equivalents." I will first explain the circumstances under which you may find "literal infringement."

A. Literal Infringement

To establish "literal infringement" of a claim, Cummins must prove by a preponderance of the evidence that during the time the patent is in force, SBM and Amro have made, used, sold, offered to sell, or imported within the United States a

product or method that incorporates all of the limitations of that claim, and have done so without Cummins's permission. You must compare each of the accused SBM products separately with each and every one of the limitations of each asserted claim to determine whether Cummins has proved, by a preponderance of the evidence, that each limitation of a claim is found in that product or performed by the method that the product performs.

B. Doctrine of Equivalents

The second type of direct infringement is called "infringement under the doctrine of equivalents." If, during the time the patent is in force, someone made, used, sold, offered to sell, or imported within the United States a product or method that does not incorporate all the limitations of the claim, there can still be infringement if the product or method satisfies that claim "under the doctrine of equivalents." Again, you must compare each accused SBM product with the limitations of each claim separately.

Under the doctrine of equivalents, a product satisfies a claim if, for each and every limitation of the claim that is not literally present in the accused product or the method it performs, the accused product includes some corresponding alternative that is "**equivalent**" to the unmet claim requirement. I will explain to you shortly what "equivalent" means.

In making your decision as to whether or not a product or the method it performs is equivalent under the doctrine of equivalents, you must look at each and every limitation of a claim and decide whether or not the accused product includes that limitation, or includes an alternative that is “equivalent” to the unmet limitation. If it does, the product satisfies the claim under the doctrine of equivalents. If instead (1) the product includes an alternative to the unmet limitation, but the alternative is not “equivalent” to the unmet limitation; or (2) the product includes no corresponding alternative to the unmet limitation, you must find that the limitation is not satisfied under the doctrine of equivalents, and there is no infringement under the doctrine of equivalents.

An alternative is considered to be “**equivalent**” to an unmet limitation of a claim if a person having ordinary skill in the art, as I have defined that person for you, would have considered the differences between the unmet limitation and the alternative to be “insubstantial” at the time of the alleged infringement. In deciding whether an alternative element of a product or an alternative step of the method the product performs is equivalent to an unmet limitation of the claim, you may consider whether the alternative and the unmet claim limitation: (1) perform substantially the same function; and (2) work in substantially the same way; (3) to achieve substantially the same result.

You may also consider whether, at the time of the alleged infringement, a person having ordinary skill in the art would have known of the interchangeability of the alternative and the unmet limitation of the claim. Interchangeability at the present time is not sufficient; in order for the alternative to be considered interchangeable with the unmet limitation, rather, the interchangeability must have been known to persons of ordinary skill in the art at the time of the infringement.

In order to prove infringement by “equivalents,” Cummins must prove by a preponderance of the evidence that any differences between the unmet limitation and the alternative are insubstantial. This means that Cummins must prove that it is more likely than not that SBM’s products include an alternative that is “equivalent” to the unmet claim limitation.

The doctrine of equivalents cannot be used to “eliminate” a claim limitation. Each limitation contained in a patent claim is deemed material in defining the scope and limits of the patented invention, and thus the doctrine of equivalents must be applied to individual limitations of the claims, not the invention as a whole. The public is entitled to rely on the limitations of the claims in order to avoid infringement. Therefore, the doctrine of equivalents cannot be used to erase the limitations found in the claims. Application of the doctrine of equivalents is improper if it would render any claim limitation unnecessary.

C. Means-Plus-Function Claims

Claim 55 of the '354 patent and claim 15 of the '503 patent contain means-plus-function clauses. A means-plus-function clause describes a means for performing a particular function. This type of clause in a claim does not cover all possible structures that perform the respective function, but covers only the structures described in the patent specification and drawings that perform the respective function, or an equivalent of that structure. For each means-plus-function clause in issue, I have determined the corresponding structures described in the patent specification and drawings that perform that function. These are set out in Appendix A. You must use my interpretation of the means-plus-function elements in your deliberations regarding infringement and validity. To show infringement, it is Cummins's burden to prove that it is more likely than not that the part of an accused SBM product that performs each function is identical to, or equivalent to, the structure described in the specification for performing the identical function.

You must consider each SBM product accused of infringement separately. In deciding whether Cummins has proven that a particular SBM product includes the structure covered by a means-plus-function requirement, you must first decide whether that product has a structure that performs the function I described for that

means-plus-function clause. If not, the claim containing that means-plus-function requirement is not infringed.

If you find that the SBM product in question does have a structure that performs the claimed function, you must next identify that structure. You must then determine whether Cummins has proven that the structure is either identical to, or equivalent to, any structure I have listed in Appendix A for performing that claimed function. If they are identical or equivalent, the means-plus-function requirement is satisfied by that structure of SBM's product. If all the other requirements of the claim are also satisfied by that particular product, then that product infringes the claim.

Whether the structure of SBM's product is equivalent to a structure described in the patent specifications is decided from the perspective of a person of ordinary skill in the art. If a person of ordinary skill in the art would consider the differences between the structure found in SBM's product and a structure described in the patent specification to be insubstantial, the structures are equivalent.

In deciding whether the differences would be "insubstantial," you must consider whether the structures work in substantially the same way to achieve substantially the same result. You must consider whether, as of April 2002 for claim 55 of the '354 patent, or as of June 1999 for claim 15 of the '503 patent, a person having ordinary skill in the art would have known of the equivalent structures.

Someone can infringe a patent without knowing that what they are doing is an infringement of the patent. They also may infringe even though they believe in good faith that what they are doing is not an infringement of any patent. On the other hand, someone does not infringe by inventing a new and different way of accomplishing the same result, or by designing around a patent by creating a product that does not incorporate all of the limitations of any claim of the patent.

V. Willfulness

In this case, Cummins argues both that SBM and Amro infringed, and that they infringed willfully. So, as you will see on the verdict form, you will first consider each asserted claim of the patents-in-suit and decide whether it is more likely than not that it is infringed by SMB and Amro. For each claim of the patents-in-suit that you find infringed, you must then decide whether Cummins has shown by clear and convincing evidence that SBM and Amro acted with reckless disregard of one or more claims of the patents-in-suit. To show “reckless disregard,” Cummins must satisfy a two-part test. The first part is an objective inquiry regarding SBM’s and Amro’s conduct, and the second part concerns SBM’s and Amro’s state of mind.

A. Objective Inquiry

When considering SBM’s and Amro’s conduct, you must decide whether Cummins has shown by clear and convincing evidence that SBM’s and Amro’s

conduct was reckless. Specifically, Cummins must show that SBM and Amro were aware of the patent or patents containing the claim or claims you find infringed, and that SBM and Amro proceeded with the infringing conduct despite an objectively high likelihood that their actions constituted infringement of a valid and enforceable patent. The states of mind of SBM and Amro are not relevant to this objective inquiry.

B. State of Mind

If you conclude that Cummins has proven that SBM's and Amro's conduct was objectively reckless, then you need to consider the second part of the test. You must determine whether the risk was known or obvious to SBM and Amro. Cummins must persuade you by clear and convincing evidence either that SBM and Amro actually knew of the objectively high risk of infringement, or that the risk was so obvious that they should have known about it.

In deciding whether Cummins has satisfied the state-of-mind part of the test, you should consider all facts surrounding the alleged infringement, which include but are not limited to:

- (1) Whether SBM intentionally copied a product or method covered by the claim or claims you found to be infringed;
- (2) Whether SBM and Amro, when they learned of Cummins's patent protection, investigated the scope of the patents-in-suit and formed a

good faith belief that the patents were not infringed, before they started or continued any possible infringing activity;

- (3) Whether SBM and Amro had a substantial defense to infringement and reasonably believed that the defense would be successful if litigated;
- (4) Whether SBM and Amro made a good faith effort to avoid infringing the patents, for example, whether they took remedial action upon learning of the patents by ceasing infringing activity or attempting to design around the patents; and
- (5) Whether SBM and Amro tried to cover up their infringement.

The fact that you may have found that one or more of the patents-in-suit is infringed does not mean that SBM and Amro's infringement was willful. All that is required for SBM or Amro to avoid a finding of willful infringement is that it had a good faith belief that it did not infringe a valid claim, and that this belief was reasonable under all of the circumstances.

In considering whether SBM and Amro acted in good faith, you should consider all the circumstances, including whether or not SBM and Amro obtained and followed the advice of a competent lawyer with regard to infringement. The absence of a lawyer's opinion, by itself, is insufficient to support a finding of willfulness, and you may not assume that merely because a party did not obtain an opinion of counsel, the opinion would have been unfavorable. However, you may

consider whether SBM and Amro sought a legal opinion as one factor in assessing whether, under the totality of the circumstances, any infringement by SBM and Amro was willful. If you find that either SBM or Amro did not have a good faith belief that it did not infringe a valid claim, or that its belief was unreasonable and reckless, then you should find its infringement, if any, willful.

The issue of willful infringement is not relevant to your decision of whether there is infringement. A finding of willful infringement may, in certain circumstances, result in the court awarding the patent owner increased damages. If you decide that SBM and Amro willfully infringed any of the patents-in-suit, then it will be the court's job to decide whether or not to award increased damages to Cummins. You should not consider willful infringement in making your damage award, if any.

VI. Invalidity

Only a valid patent may be infringed. A patent cannot take away from people their right to use what was known or what would have been obvious when the invention was made. Therefore, you the jury have the responsibility for deciding whether each claim in question is valid.

For a patent to be valid, the invention claimed in the patent must be new and non-obvious in light of what came before. That which came before is referred to as the “prior art.” SBM and Amro contend that the claims in the patents-in-suit are not valid because they are described in one or more prior art references. SBM and Amro must prove invalidity by clear and convincing evidence.

There are two ways in which SBM and Amro contend that the invention described in a particular claim is invalid. These ways are sometimes called “anticipation” and “obviousness,” and I will describe them for you below. You must decide whether SBM and Amro have proven invalidity of any of the asserted claims by clear and convincing evidence. Before I discuss anticipation and obviousness, I will first instruct you on the prior art.

A. Date of Invention and Prior Art

SBM and Amro are relying on several items of prior art. In order to rely on these items of prior art, SBM and Amro must prove by clear and convincing evidence that these items fall within one or more of the different categories of prior art recognized by the patent laws. These categories include:

- (1) anything that was publicly known or used in the United States by someone other than the inventor before the inventor made the invention;

- (2) anything that was in public use or on sale in the United States more than one year prior to the effective filing date of a patent-in-suit;
- (3) anything that was patented or described in a printed publication anywhere in the world before the inventor made the invention, or more than one year before the effective filing date of a patent-in-suit.

1. Date of Invention

Two of the different categories of prior art refer to the date on which the inventor made the invention. This is called the “date of invention.” For purposes of this case, the “date of the invention” for a particular claim is the same as the “effective filing date,” which is referred to in the other two categories of prior art.

The effective filing date of a claim of a patent is the date the patent application was filed, or the date on which an earlier patent application was filed, if the earlier application discloses the invention described in the claim of the later patent.

The parties have stipulated that:

- (1) the effective filing date of claim 15 of the ‘503 patent is June 23, 1995;
- (2) the effective filing date of claims 58, 85, and 120 of the ‘806 patent is May 19, 1992.

Cummins asserts that claim 55 of the ‘354 patent is entitled to an effective filing date of March 7, 1995. SBM and Amro assert that claim 55 of the ‘354 patent

is not entitled to the 1995 effective filing date, but rather has an effective filing date of May 12, 1998.

Cummins also asserts that claim 41 of the '456 patent is entitled to an effective filing date of May 19, 1992. SBM and Amro assert that claim 41 of the '456 patent is not entitled to the 1992 effective filing date, but rather has an effective filing date of December 15, 1995.

During the patent application process, the patent applicant may change the claims between the time the patent application is first filed and the time a patent is eventually granted. As long as an application is pending, an applicant may amend the claims or add new claims. An applicant may also add new patent claims in a new application. A new claim added in a new application may be entitled to an effective filing date of the date an earlier application was filed, if the earlier application discloses the invention in the new claim.

So, for claim 55 of the '354 patent to be entitled to the March 7, 1995 filing date, the March 7, 1995 application must disclose the invention of claim 55 with all of its limitations. For claim 41 of the '456 patent to be entitled to the May 19, 1992 filing date, the May 19, 1992 application must disclose the invention of claim 41 with all of its limitations.

The question is not whether claim 55 of the '354 patent or claim 41 of the '456 patent is an obvious variant of that which is disclosed in the specification of the earlier patent applications. Rather, the earlier applications themselves must describe in sufficient detail the inventions in the claims.

The March 7, 1995 application must describe the invention in claim 55 of the '354 patent in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of March 7, 1995.

Similarly, the May 19, 1992 application must describe the invention in claim 41 of the '456 patent in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of May 19, 1992.

A disclosure in the earlier applications that merely renders claim 55 of the '354 patent or claim 41 of the '456 patent obvious is not sufficient to meet this written description requirement; the disclosure in the earlier application must describe the claim with all its limitations.

This written description requirement may be satisfied by the words, structures, figures, diagrams, formulas, etc. in the patent application, and any combination of them, as understood by a person of ordinary skill in the art. Be aware that the figures in a patent are not drawn to scale unless specifically so indicated. A requirement in

a claim need not be expressly disclosed in the patent application as originally filed, provided that persons of ordinary skill in the art would have understood that the missing requirement is inherent in the written description of the patent application.

SBM and Amro can meet their burden of proving that an earlier application fails to satisfy the written description requirement for a particular claim (and thus establish that the claim is not entitled to the earlier effective filing date) by showing by clear and convincing evidence that the entirety of the specification of the earlier application would clearly indicate to a person of ordinary skill in the art that the invention described in that application is of a narrower scope than the invention of that particular claim.

2. Prior Art

I will now list the categories of prior art you may consider. Later, I will list the specific items of prior art upon which SBM and Amro are relying to establish that the claims of the patents-in-suit are invalid.

a. Prior Use or Knowledge

Knowledge or use in the United States of a currency denominating machine can be prior art to the patent claims. The knowledge or use will be prior art if it meets the following requirements:

- (1) The knowledge or use must be by someone other than the inventor;
- (2) The knowledge or use must be before the effective filing date of the claim;
- (3) The knowledge or use must be in the United States. Prior knowledge or use outside the United States cannot be relied upon to invalidate a patent claim; and
- (4) The knowledge or use must have been public. Private or secret knowledge or use by someone other than the inventor is not prior art.

b. Public Use or Sale

The public use or sale in the United States of a currency denominating machine may be prior art to a patent claim if the use or sale occurred more than one year before the effective filing date of the claim. The use or sale of the product or method must be public. The product or method publicly used or sold may be the inventor's own product or method.

c. Prior Patent or Printed Publication

A U.S. patent, or a printed publication in this or another country, may be prior art. A printed publication must be reasonably accessible to those members of the public who would be interested in its contents. It is not necessary that the printed publication be available to every member of the public.

So long as the printed publication was available to the interested public, the form in which the information was recorded is unimportant. The information must, however, have been maintained in some permanent form, such as printed or typewritten pages, or photocopies.

B. Anticipation

A patent claim is invalid if the claimed invention is not new. For the claim to be invalid because it is not new, all of its requirements must have existed in a single item of prior art as described above. If a patent claim is not new we say it is “anticipated” by a prior art reference.

SBM and Amro are relying upon the following prior art references as anticipating prior art:

- (1) Claim 55 of the ‘354 patent is anticipated by the JetScan Currency Scanner/Counter Model 4062 [Exhibit No. DX277].
- (2) Claim 55 of the ‘354 patent is anticipated by the JetScan Currency Scanner/Counter Model 4061 [Exhibit No. DX211].

For either of these prior art references to anticipate claim 55 of the ‘354 patent, each element in the claim must actually be present in the item of prior art. Of course, you must first decide whether SBM and Amro have shown by clear and convincing evidence that these references are “prior art” as defined above.

C. Obviousness

SBM and Amro also contend that certain claims of the patents-in-suit are invalid because the claimed subject matter was obvious to a person of ordinary skill in the art at the time the invention was made. To be patentable, an invention must not have been obvious to a person of ordinary skill in the art at the time the invention was made.

Obviousness may be shown by considering one item of prior art or multiple items of prior art in combination with each other. SBM and Amro contend that the following claims of the patents-in-suit would have been obvious to a person of ordinary skill in the art at the time the invention was made in light of the following prior art references:

- (1) Claim 41 of the '456 patent is obvious in light of the Glory GFR-100 Currency Reader Counter [Exhibit No. DX210];
- (2) Claim 15 of the '503 patent is obvious in light of the JetScan Currency Scanner/Counter Model 4061 [Exhibit No. DX211];
- (3) Claims 58, 85, and 120 of the '806 patent are obvious in light of U.S. Patent No. 4,114,804 to Jones [Exhibit No. DX63] in combination with U.S. Patent Number 5,179,685 to O'Maley [Exhibit No. DX224]; and

- (4) Claims 58, 85, and 120 of the '806 patent are obvious in light of the "Specification on Toshiba Currency Fitness Sorter Model CF-401" [Exhibit No. DX69] in combination with the "Mosler CF-400 Currency Sorter Parts Catalog" [Exhibit No. DX68].

Again, you must first determine whether SBM and Amro have shown by clear and convincing evidence that these references are "prior art" as defined above.

The next question is, would it have been obvious to those skilled in the art who knew of these items of prior art to make the invention described in a claim? If the answer to that question is "yes," then that patent claim is invalid. SBM and Amro have the burden of proving by clear and convincing evidence that the above claims of the patents-in-suit are invalid for obviousness.

Obviousness is determined from the perspective of a person of ordinary skill in the art. The issue is not whether the claimed invention would have been obvious to you, to me as a Judge, or to a genius in the field of the invention. Rather, the question is whether or not the invention would have been obvious to a person of ordinary skill in the field of the invention.

You must not use hindsight when comparing the prior art to the invention for obviousness. In making a determination of obviousness or non-obviousness, you must consider only what was known before the invention was made. You may not judge the invention in light of present day knowledge.

In determining whether or not these claims would have been obvious, you should make the following determinations from the perspective of a person of ordinary skill in the art, as I have previously defined it for you, in light of the scope and content of the prior art:

First, are there any **material differences** between the **scope and content** of the prior art and each asserted claim of the patents-in-suit?

Second, are there any **objective indications** of non-obviousness?

1. Scope and Content

Determining the scope and content of the prior art means that you should determine what is disclosed in the prior art relied upon by SBM and Amro. You must decide whether this prior art was reasonably relevant to the particular problem the inventor faced in making the invention covered by the patent claims. Such relevant prior art includes prior art in the field of the invention, and also prior art from other fields that a person of ordinary skill would look to when attempting to solve the problem.

2. Material Differences

In determining whether there are any material differences between the invention covered by the patent claims and the prior art, you should not look at the

individual differences in isolation. You must consider the claimed invention as a whole and determine whether or not it would have been obvious in light of all the prior art.

If you conclude that the prior art discloses all the elements or steps of the claimed invention, but those elements or steps are found in separate items of prior art, you may consider whether or not it would have been obvious to combine those items. A claim is not obvious merely because all of the elements or steps of that claim already existed.

In deciding whether to combine what is described in various items of prior art, you should consider whether or not there was some motivation or suggestion for a person of ordinary skill to make the combination covered by the patent claims. You should also consider whether or not someone reading the prior art would have been discouraged from following the path taken by the inventor.

It is common sense that familiar items may have been obvious beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle. Multiple references in the prior art can be combined to show that a claim is obvious. Any need or problem known in the field and addressed by the patent can provide a reason for combining the

elements or steps in the manner claimed. To determine whether there was an apparent reason to combine the known elements or steps in the way a patent claims, you can look to interrelated teachings of multiple patents, to the effects of demands known to the community or present in the marketplace, and to the background knowledge possessed by a person of ordinary skill in the art. Neither the particular motivation of the person of ordinary skill in the art nor the alleged purpose of the patentee controls. One of ordinary skill in the art is not confined only to prior art that attempts to solve the same problem as the patent claim.

3. Objective Indications

You also must consider what are referred to as objective indications of non-obviousness. Some of these indications of non-obviousness are:

- (1) Long-felt and unmet need in the art for the invention;
- (2) Failure of others to achieve the results of the invention;
- (3) Commercial success of the invention;
- (4) Praise of the invention by those in the field;
- (5) Expression of disbelief or skepticism by those skilled in the art;
- (6) Invention proceeded in a direction contrary to accepted wisdom in the field; and
- (7) Invention achieved any unexpected results.

These objective indications are only relevant to obviousness if there is a connection, or nexus, between them and the invention covered by the patent claims. For example, commercial success is relevant to obviousness only if the success of the product is related to a feature of the patent claims. If the commercial success is the result of something else, such as innovative marketing, and not the result of a patented feature, then you should not consider it to be an indication of non-obviousness.

Again, you must compare separately each of the claims of the patents asserted by Cummins with the prior art references listed above to determine whether SBM and Amro have proved by clear and convincing evidence that one or more of the claims was obvious.

VII. Damages

If you find by a preponderance of evidence that a claim has been infringed and you do not find by clear and convincing evidence that the same claim is invalid, then Cummins is entitled to an award of damages adequate to compensate for the infringement. You should not interpret the fact that I have given instructions about damages as an indication in any way that I believe that Cummins should, or should not, win this case. It is your task first to decide whether SBM and Amro are liable.

I am instructing you on damages only so that you will have guidance in the event you decide that SBM and Amro are liable and that Cummins is entitled to recover money from them.

You may award Cummins damages for any infringement you have found. The amount of those damages must be adequate to compensate Cummins for the infringement. Your damages award, if you reach this issue, should put Cummins in approximately the same financial position that it would have been in had the infringement not occurred, but in no event may the damages award be less than a reasonable royalty. You may not add anything to the amount of damages to punish SBM and Amro or to set an example.

Cummins has the burden to establish the amount of its damages by a preponderance of the evidence. Damages are limited to acts of infringement in the United States. You should award only those damages that Cummins establishes that it more likely than not suffered. Cummins is not entitled to damages that are remote or speculative or based on guesswork. While Cummins is not required to prove its damages with mathematical precision, it must prove them with reasonable certainty.

Damages may be awarded using two ways, lost profits from SBM's and Amro's sales, or a reasonable royalty on SBM's and Amro's sales.

1. Lost Profits

To recover lost profits for infringing sales, Cummins must show that, but for the infringement, there is a reasonable probability that it would have made sales that SBM and Amro made of the infringing currency denominating machines. In proving that it would have made those sales if not for the infringement, Cummins must establish the share of SBM's and Amro's sales that it would have made had the infringing currency denominating machines not been on the market.

Cummins is entitled to lost profits if it establishes each of the following by a preponderance of the evidence:

- (1) that there was a demand for the patented product or method;
- (2) that there were no acceptable non-infringing substitutes or, if there were, Cummins's market share of the number of the sales made by SBM and Amro that Cummins would have made despite the availability of other acceptable non-infringing substitutes;
- (3) that Cummins had the manufacturing and marketing capacity to make any infringing sales actually made by the infringer and for which Cummins seeks an award of lost profits; and
- (4) the amount of profit that Cummins would have made if SBM and Amro had not infringed.

Market Share

If you find that Cummins established that it would have made sales but for the infringement, you must decide the amount of sales that Cummins lost as a result of the infringement. One way it may prove the sales it would have made if the infringement had not happened is to prove its share of the relevant market, excluding infringing currency denominating machines. You may award Cummins a share of the profits equal to that market share even if you find that there were available, non-infringing substitutes for the patented system.

In deciding Cummins's market share, you must decide which currency denominating products are in its market. Products are in the same market if they are sufficiently similar to compete against each other. Two products are sufficiently similar if one does not have a significantly higher price or that possess characteristics significantly different than the other.

2. Reasonable Royalty

If you find that Cummins has established infringement, it is entitled to at least a reasonable royalty to compensate for that infringement. If you find that Cummins has not proved its claim of lost profits, or has proved its claim for lost profits for only a portion of the infringing sales, then you must award Cummins a reasonable

royalty for all infringing sales for which it has not been awarded lost profits damages.

A royalty is the amount of money a licensee pays to a patent owner for use made of the invention under the patent. A reasonable royalty is the amount of money a willing patent owner and a willing prospective licensee would have agreed upon at the time of the infringement for a license to make use of the invention. It is the royalty that would have resulted from an arm's-length negotiation between a willing licensor and a willing licensee, assuming that both parties believed the claims in question to be valid and infringed and that the licensee would respect the patent. In making your determination of the amount of a reasonable royalty, it is important that you focus on the time period when the infringer first infringed the patent and the facts that existed at that time. Your determination does not depend on the actual willingness of the parties to this lawsuit to engage in such negotiations. Your focus should be on what the parties' expectations would have been had they entered negotiations at the time the infringing activity began and the facts that existed at the time.

In determining the reasonable royalty, you should consider all the facts known and available to the parties at the time infringement began. Some of the kinds of factors that you may consider in making your determination are:

- (1) whether the patent holder had an established royalty for the invention, or in the absence of such a licensing history, any royalty arrangements that were generally used and recognized in the particular industry at that time. In this connection, when evaluating evidence about amounts paid under other licenses and agreements, you should consider whether and to what extent such licenses were comparable—that is, was the technology exchanged and the terms of the agreement similar in terms and scope to the technology of the patent-in-suit and the license for the patent in the hypothetical negotiation;
- (2) the nature of the commercial relationship between the patent owner and the licensee, such as whether they were competitors or whether their relationship was that of an inventor and a promoter;
- (3) the established profitability of the patented product or method, its commercial success, and its popularity at the time;
- (4) whether the patent owner had an established policy of granting licenses or retaining the patented invention as its exclusive right, or whether the patent holder had a policy of granting licenses under special conditions designed to preserve its exclusivity;
- (5) the size of the anticipated market for the invention at the time the infringement began;
- (6) the duration of the patent and of the license, as well as the terms and scope of the license, such as whether it is exclusive or nonexclusive or subject to territorial restrictions;

- (7) the rates paid by the licensee for the use of other patents comparable to the plaintiff's patent;
- (8) whether the licensee's sales of the patented invention promote sales of its other products or methods and whether the invention generates sales to the inventor of his nonpatented items;
- (9) the utility and advantages of the patent property over the old products or methods, if any, that had been used for accomplishing similar results;
- (10) the extent to which the infringer used the invention, and any evidence probative of the value of such use;
- (11) the portion of the profits in the particular business that are customarily attributable to the use of the invention or analogous inventions;
- (12) the portion of the profits that should be credited to the invention as distinguished from nonpatented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer;
- (13) the opinion and testimony of qualified experts and of the patent holder;
- (14) any other factors which, in your mind, would have increased or decreased the royalty the infringer would have been willing to pay and the patent owner would have been willing to accept, acting as normally prudent business people;
- (15) the amount that a licensor and a licensee would have agreed upon just before the patent-in-suit was issued if both had been reasonably and voluntarily trying to reach an agreement, that is, the amount which a prudent licensee who desired as a business proposition to obtain a license to use a particular product or method embodying the patented invention would have been willing to pay as a royalty and still be able

to make a reasonable profit, and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

No one factor is dispositive, and you can and should consider the evidence that has been presented to you in this case on each of these factors. The final factor establishes the framework that you should use in determining a reasonable royalty, i.e., the payment that would have resulted from a negotiation between Cummins and SBM and Amro taking place at the time when the infringement first began.

3. Future Damages

You may also award Cummins damages for any infringement that may occur in the future if SBM and Amro continue to practice any claim that you have found to be infringed and not invalid. As with past damages, the amount of those damages must be adequate to compensate Cummins for the infringement.

In awarding future damages, you should determine what amount, if any, you find adequate to compensate Cummins for the conduct you found to infringe that may occur in the future.

VIII. Instructions for Deliberations

It is your sworn duty as jurors to discuss the case with one another in an effort to reach agreement if you can do so. Each of you must decide the case for yourself, but only after full consideration of the evidence with the other members of the jury. While you are discussing the case, do not hesitate to re-examine your own opinion and change your mind if you become convinced that you are wrong. However, do not give up your honest beliefs solely because others think differently, or merely to finish the case.

Remember that in a very real way you are the judges—judges of the facts. Your only interest is to seek the truth from the evidence in the case.

Do not let bias, prejudice, or sympathy play any part in your deliberations. This case should be considered and decided by you as an action between persons of equal standing in the community, of equal worth, and holding the same or similar stations in life. A corporation is entitled to the same fair trial at your hands as a private individual and should be treated as such. The law is no respecter of persons; all persons, including corporations and other organizations, stand equal before the law, and are to be dealt with as equals in a court of justice.

When you retire to the jury room to deliberate on your verdict, you will take this charge with you, as well as exhibits which the Court has admitted into evidence. When you go to the jury room, the first thing that you should do is select one of your number as your Foreperson, who will help to guide your deliberations and will speak for you here in the courtroom. The Foreperson should read, or have another juror read, these instructions to the jury. You should then begin your deliberations.

If you recess during your deliberations, follow all of the instructions that the Court has given you on your conduct during the trial. Do not discuss the case unless all jurors are present in the jury room.

After you have reached your unanimous verdict, your Foreperson must fill in your answers to the written questions and initial and date the verdict form. Do not reveal your answers until such time as you are discharged, unless otherwise directed by me.

You must never disclose to anyone, not even to me, your numerical division on any question. If you want to communicate with me at any time, please give a written message or question to the court security officer, who will bring it to me.

I will then respond as promptly as possible, either in writing or by having you brought into the courtroom so that I can address you orally.

The presiding juror or any other juror who observes a violation of the Court's instructions shall immediately warn the one who is violating the same and caution the juror not to do so again.

After you have reached a verdict, you are not required to talk with anyone about the case unless the Court orders otherwise. You may now retire to the jury room to conduct your deliberations.

SIGNED October 6, 2009.

A handwritten signature in black ink, appearing to read "Ron Clark", written over a horizontal line.

Judge Ron Clark
United States District Judge

APPENDIX A

Remember that Cummins has only asserted certain claims. These are numbered in **bold** (for example: claim **58**). The terms defined below may also appear in other claims that are referred to by an asserted claim. For example, claim **58** of the '806 patent refers to claim 49 of the '806 patent. The term "evaluate" or "evaluation" is shown below as appearing in claim **58**. This term is actually found in claim 49, but claim 49 is not itself asserted.

This is also true for the following claims of the '806 and '456 patents: (1) claim **85** of the '806 patent refers to claims 82 and 84 of the '806 patent; (2) claim **120** of the '806 patent refers to claim 112 of the '806 patent; and (3) claim **41** of the '456 patent refers to claim 35 of the '456 patent.

TERM	DEFINITION OR FUNCTION/STRUCTURE	PATENT AND CLAIM(S) WHERE TERM APPEARS
"Evaluate" or "Evaluation"	Definition: To scan all the bills to determine their denomination or to determine if spurious or a "no-call."	'806 patent: claim 58 , claim 85 , and claim 120 '456 patent: claim 41
"Automatically Denominating"	Definition: To designate or identify the denominations of bills without any external influence.	'806 patent: claim 58 , claim 85 , and claim 120
"Determine the Denomination"	Definition: To designate or identify the denominations of bills without any external influence.	'456 patent: claim 41

TERM	DEFINITION OR FUNCTION/STRUCTURE	PATENT AND CLAIM(S) WHERE TERM APPEARS
Means-Plus-Function Clauses		
“Means for Selecting”	<p>This element is a means-plus function element to be construed under 35 U.S.C. § 112, ¶6.</p> <p>Function: “selecting, for each type of characteristic information, one of a plurality of sensitivity settings.”</p> <p>Structure: the display 82 of FIG. 4 and the input of selection choices via an input device such as a keyboard or buttons.</p> <p>Under § 112, ¶6, the claim will literally cover the above structure and its equivalents.</p>	‘503 patent: claim 15
“Means for Storing”	<p>This element is a means-plus function element to be construed under 35 U.S.C. § 112, ¶6.</p> <p>Function: “storing, for each type of characteristic information, reference information associated with each of said sensitivity settings.”</p> <p>Structure: the memory 80.</p> <p>Under § 112, ¶6, the claim will literally cover the above structure and its equivalents.</p>	‘503 patent: claim 15

TERM	DEFINITION OR FUNCTION/STRUCTURE	PATENT AND CLAIM(S) WHERE TERM APPEARS
“Means for Comparing”	<p>This element is a means-plus function element to be construed under 35 U.S.C. § 112, ¶6.</p> <p>Function: “comparing, for each type of characteristic information, said respective output signal to corresponding reference information associated with the one of said plurality of sensitivity settings selected by said means for selecting for said type of characteristic information.”</p> <p>Structure: the microprocessor 12 executing at least one of the algorithms described in column 12, line 41 through column 13, line 9, and column 18, line 45, through column 19, line 67.</p> <p>Under § 112, ¶6, the claim will literally cover the above structure and its equivalents.</p>	‘503 patent: claim 15

TERM	DEFINITION OR FUNCTION/STRUCTURE	PATENT AND CLAIM(S) WHERE TERM APPEARS
“Means for Indicating”	<p>This element is a means-plus-function element to be construed under 35 U.S.C. § 112, ¶6.</p> <p>Function: “indicating that said bill is counterfeit if one or more of said output signals do not satisfactorily compare with said reference information.”</p> <p>Structure: the microprocessor 12 executing at least one of the algorithms described in column 12, line 41, through column 13, line 9, and column 18, line 45, through column 19, line 67.</p> <p>Under § 112, ¶6, the claim will literally cover the above structure and its equivalents.</p>	‘503 patent: claim 15

TERM	DEFINITION OR FUNCTION/STRUCTURE	PATENT AND CLAIM(S) WHERE TERM APPEARS
<p>“Signal Processing Means”</p>	<p>This element is a means-plus-function element to be construed under 35 U.S.C. § 112, ¶6.</p> <p>Function: “comparing said retrieved characteristic information with master characteristic information associated with at least one genuine bill; said signal processing means generating an indication of the denomination of said bill based on said comparison when said retrieved characteristic information sufficiently matches said master characteristic information.”</p> <p>Structure: a CPU programmed to carry out the correlation algorithm disclosed in the specification to compare the scanned signal samples, or scanned patterns, from the unknown bills with the stored master characteristic pattern.</p> <p>Under § 112, ¶6, the claim will literally cover the above structure and its equivalents.</p>	<p>‘354 patent: claim 55</p>

APPENDIX B

The parties have agreed, or stipulated, to the following facts. This means that both sides agree these are facts. You must therefore treat these facts as having been proved.

1. Plaintiff Cummins is a corporation existing and organized under the laws of Indiana and has its principal place of business at 891 Feehanville Drive, Mt. Prospect, Illinois 60056.
2. SBM is a corporation existing and organized under the laws of the Republic of Korea and has its principal place of business at 206 Anyang-dong, Manan-gu, Anyang City, Gyeonggi-do, South Korea.
3. Amro is a corporation existing and organized under the laws of Hawaii and has its principal place of business at 1136 Union Mall, Suite 618, Honolulu, Hawaii 96813.
4. The following claims are at issue in this case: claim **15** of the '503 patent; claim **41** of the '456 patent; claim **55** of the '354 patent; and claims **58, 85, and 120** of the '806 patent.
5. The priority date of claim **15** of the '503 patent is June 23, 1995.
6. The priority date of claims **58, 85, and 120** of the '806 patent is May 19, 1992.
7. The SB-1000+ does not differ from the SB-1000 CF model (with counterfeit detection) for the purposes of this case.
8. The limitation "signal processing means" in claim 55 of the '354 patent is found in or practiced by the JetScan Currency Scanner/Counter Model 4061 [Exhibit No. DX211].